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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/315,102	05/20/1999	DAVID W. STEBBINGS	104706.111	6029
24395	7590	12/23/2003	EXAMINER	
HALE & DORR LLP THE WILLARD OFFICE BUILDING 1455 PENNSYLVANIA AVE, NW WASHINGTON, DC 20004			MOORTHY, ARAVIND K	
		ART UNIT		PAPER NUMBER
		2131		16
DATE MAILED: 12/23/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/315,102	STEBBINGS, DAVID W.
	Examiner	Art Unit
	Aravind K Moorthy	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 September 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-52 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-52 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 24 September 2003 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application since a specific reference was included in the first sentence of the specification or in an Application Data Sheet) 37 CFR 1.78.
  - a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-52 are pending in the application.
2. Claims 1-52 have been rejected.

#### *Response to Amendment*

3. The examiner approves amendment to the abstract.
4. The examiner approves corrections to the drawings.
5. The examiner approves correction to spelling in claims 14 and thus withdraws claim objection.
6. In light of applicant's argument, the examiner withdraws 35 USC § 112 rejections.

#### *Response to Arguments*

7. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

**8. Claims 11, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al U.S. Patent No. 5,822,360.**

As to claim 11, Lee et al discloses a method for authenticating at least one of a media and data stored on the media, in order to prevent at least one of piracy, unauthorized access and unauthorized copying of the data stored on the media [column 2, lines 22-38]. Lee et al a data disc comprising media containing at least one modified modulation rule comprising at least one authentication key or component thereof for authenticating at least one of the media and the data [column 3 line 62 to column 4 line 12]. Lee et al discloses that the at least one of the media and the data may be outputted in at least one of an analog and audio form substantially error free and free of the at least one modified modulation rule by at least one of an error removal process and the at least one authentication key or component thereof [column 7, lines 42-51]. Lee et al discloses allowing a user to experience the media without experiencing the modulation rules removed therefrom via the error removal process [column 11, lines 52-65].

As to claim 28, Lee et al discloses that authentication occurs using at least three different sources for compiling compound authentication keys [column 11, lines 10-23].

As to claim 29, Lee et al discloses that authentication occurs via decoding or decrypting the embedded authentication key or component thereof for subsequent authentication [column 11 line 66 to column 12 line 15].

**9. Claims 13, 41 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Kato et al U.S. Patent No. 6,301,663 B1.**

As to claim 13, Kato et al discloses a method for authenticating at least one of a media and data to be stored on the media, in order to prevent at least one of piracy, unauthorized access and unauthorized copying of the data stored on the media [column 1, lines 30-35]. Kato et al discloses a data message comprising modulation via at least one modified modulation rule to generate at least one authentication key or component thereof for authenticating the data message [column 11, lines 15-29]. Kato et al discloses that the modified modulation rule cannot be readily altered, obscured nor removed from the data message without simultaneously degrading or impairing a quality of an audible component of the data message. Kato et al discloses that the data message is transmitted substantially free of the modified modulation rule thereby preventing a destination processor from reading and subsequently authenticating the data message [column 12, lines 27-46].

As to claim 41, Kato et al discloses that authentication occurs using at least three different sources for compiling compound authentication keys [column 11, lines 5-14].

As to claim 42, Kato et al discloses that authentication occurs via decoding or decrypting the embedded authentication key or component thereof for subsequent authentication [column 12, lines 27-46].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**10. Claims 1, 2, 8, 9, 12, 16, 17, 22, 23, 30, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 in view of Sandford, II et al U.S. Patent No. 5,727,092.**

As to claims 1, 2, 12, 16, 17 and 30, Lee et al discloses reading the data from the media [column 8, lines 4-18]. Lee et al discloses detecting the modulation of the at least one modified modulation rule associated with the data [column 8, lines 4-18]. Lee et al discloses outputting the data as at least one of audio, video, audio data, video data and digital data substantially free of the modulation of the at least one modified modulation rule [column 8, lines 27-33].

Lee et al does not teach deriving an embedded authentication key or component thereof responsive to the detecting step. Lee et al does not teach comparing the embedded authentication key or component thereof, to at least one authentication key or component thereof. Lee et al does not teach authenticating the at least one of the media and the data responsive to the comparing step. Lee et al does not teach that the deriving derives the embedded authentication key or component thereof as a combination of on-off binary codes representing ones and zeros to represent a predetermined symbol sequence.

Sandford, II et al teaches deriving an embedded authentication key or component thereof responsive to the detecting step [column 5, lines 8-21]. Sandford, II et al teaches comparing the

embedded authentication key or component thereof, to at least one authentication key or component thereof [column 5, lines 22-36]. Sandford, II et al teaches authenticating the at least one of the media and the data responsive to the comparing step [column 5, lines 22-36]. Sandford, II et al teaches that the deriving derives the embedded authentication key or component thereof as a combination of on-off binary codes representing ones and zeros to represent a predetermined symbol sequence [column 5, lines 22-36].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lee et al so that an embedded authentication ticket would have been derived after the modulation of the modified rule was detected: The authentication key would have been compared to another authentication key to authenticate the media. The embedded authentication key would have been derived as a combination of on-off binary codes representing ones and zeros to represent a predetermined symbol sequence.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lee et al by the teaching of Sandford, II et al because it thwarts unauthorized access to the information and allows for authorized extraction of the embedded data [column 2, lines 27-34].

As to claims 8, 22 and 35, Lee et al teaches that the authenticating step further includes a step of using at least three different sources for compiling compound authentication keys, as discussed above.

As to claims 9, 23 and 36, Lee et al teaches that the deriving step further comprises the step of at least one of decoding and decrypting the embedded authentication key or component thereof for subsequent authentication, as discussed above.

**11. Claims 3, 18 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 and Sandford, II et al U.S. Patent No. 5,727,092 as applied to claims 1, 12 and 16 above, and further in view of Kanota et al U.S. Patent No. 5,418,853.**

As to claims 3, 18 and 31, neither Lee et al nor Sandford, II et al teaches that the outputting step further includes the step of converting the data into a stereo analog signal without transferring, in the data, the modulation of the at least one modulation rule used to derive the embedded authentication key or component thereof.

Kanota et al teaches converting data into a stereo analog signal for the purpose of copy protection [column 3, lines 3-11].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Lee-Sandford combination so that the data would have been converted into a stereo analog signal without transferring, in the data, the modulation of the at least one modulation rule used to derive the embedded authentication key or component thereof.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Lee-Sandford combination by the teaching of Kanota et al because digital recording of video signals and associated audio signals make it possible for such program information to be reproduced and copied (or "dubbed") with little or no deterioration in the quality of the signal reproduced, therefore the conversion to analog prevents unauthorized copying [column 1 line 12 to column 2 line 2].

**12. Claims 4, 5, 19, 20, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 and Sandford, II et al U.S. Patent No. 5,727,092 as applied to claims 1, 12 and 16 above, and further in view of Chou et al U.S. Patent No. 5,337,357.**

As to claims 4, 5, 19, 20, 32 and 33, neither Lee et al nor Sandford, II et al teaches using different authentication keys for each disc track. Neither Lee et al or Sandford, II et al teaches locating at least one modified modulation rule on at least one of a per track basis and interval basis throughout the media such that the authentication step is performed for at least one of each track to be played, throughout playback and throughout recording.

Chou teaches authenticating using a different authentication key or component thereof for each disc track [column 3, lines 18-25].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Lee-Sandford combination so that each disc track would have used a different authentication key and the modulation rule would have been located per track for authentication as well.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Lee-Sandford combination by the teaching of Chou because it restricts the possibility to use a particular program only to those willing to pay for that program and to prevent others who have not obtained authorization from such use. For example, if the user must call in to get a key which is then used to run a particular distributed program and this key is the same for all copies of this program, there is nothing to prevent the

caller from simply giving the key to a third party who then may access the program without paying for such use [column 1, lines 33-42].

**13. Claims 6, 21 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 and Sandford, II et al U.S. Patent No. 5,727,092 as applied to claims 1, 12 and 16 above, and further in view of O'Connor et al U.S. Patent No. 5,745,568.**

As to claims 6, 21 and 34, the combination of Lee et al and Sandford, II et al teaches one authentication key, as discussed above.

The combination of Lee et al and Sandford, II et al does not teach the data and the media via at least two different authentication keys, each of which successively must be authenticated before said data is finally output via the outputting step.

O'Connor teaches the use of an authentication key formed by the recorded hardware ID [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Lee et al and Sandford, II et al so that the key formed by the hardware ID would have been added to the CD. Both keys would have to be authenticated before the data would have outputted.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Lee et al and Sandford, II et al by the teaching of O'Connor because data security is furnished in a flexible manner so that a single specific computer or a specified class of systems is allowed access to data [column 2, lines 30-33].

**14. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 and Sandford, II et al U.S. Patent No. 5,727,092 as applied to claim 1 above, and further in view of Renaud et al U.S. Patent No. 5,958,051.**

As to claim 7, the combination of Lee et al and Sandford, II et al teaches authentication of data, as discussed above.

The combination of Lee et al and Sandford, II et al does not teach authenticating the at least one of the media and the data over a plurality of interconnected computer networks comprising at least one of a local network, global network and the Internet.

Renaud teaches teach authenticating the at least one of the media and the data over a plurality of interconnected computer networks over the Internet [column 7, lines 55-65].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Lee et al and Sandford, II et al so that authentication of the data on the media would have been done over the Internet.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Lee et al and Sandford, II et al by the teaching of Renaud because this method provides a more efficient method for securing and verifying the authenticity of data files, especially for data files intended to be transferred over computer networks [column 3, lines 19-22].

**15. Claims 10, 24 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 and Sandford, II et al U.S. Patent No. 5,727,092 as applied to claims 1, 12 and 16 above, and further in view of Hogan U.S. Patent No. 5,828,754.**

As to claims 10, 24 and 37, the combination of Lee et al and Sandford, II et al does not teach that the comparing step further comprises the step of comparing the at least one modified modulation rule comprising the at least one authentication key or component thereof, to at least one lookup table of valid modified modulation rule output values comprising the at least one authentication key or component thereof.

Hogan teaches a lookup table that contains modified modulation rules and authentication keys [column 5, lines 24-58].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Lee et al and Sandford, II et al so that the modified modulation rules and the authentication keys were contained in the lookup table.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Lee et al and Sandford, II et al by the teaching of Hogan because the tables can be used for examining all possible alternatives to determine the best choices for minimizing DSV [column 5 line 64 to column 6 line 25].

**16. Claims 14, 15, 46, 47, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 in view of Hogan U.S. Patent No. 5,828,754.**

As to claims 14 and 15, Kato et al discloses a system for authenticating at least one of a media and data stored on the media, in order to prevent at least one of piracy, unauthorized access and unauthorized copying of the data stored on the media, as discussed above. Kato et al discloses that the data stored on the media is modulated via at least one modified modulation rule to generate at least one authentication key or component thereof for authenticating at least one of the media and the data, as discussed above. Kato et al discloses that the at least one of the media and the data may be outputted in an analog and/or audio form substantially error free and free of the at least one modified modulation rule by at least one of an error removal process and the at least one authentication key or component thereof, as discussed above. Kato et al suggests a focus servo, tracking servo, laser, lens and mirror, together comprising a portion of a disc reader housed in a data player device [column 1, lines 8-27].

Kato et al does not teach that the system includes a data player containing a data processor comprising a lookup table used by the data processor in intentionally modifying at least one modulation rule by which at least one bit indicative of the modifying is generated as at least one symbol used by the system to authenticate the at least one of the media and the data stored on the media.

Hogan teaches a system that includes a data player containing a data processor comprising a lookup table used by the data processor in intentionally modifying at least one modulation rule by which at least one bit indicative of the modifying is generated as at least one

symbol used by the system to authenticate the at least one of the media and the data stored on the media, as discussed above.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kato et al so that the modified modulation rules and the authentication keys were contained in the lookup table.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kato et al by the teaching of Hogan because the tables can be used for examining all possible alternatives to determine the best choices for minimizing DSV [column 5 line 64 to column 6 line 25].

As to claims 46 and 51, Kato et al teaches that authentication occurs using at least three different sources for compiling compound authentication keys, as discussed above.

As to claims 47 and 52, Kato et al teaches that authentication occurs via decoding or decrypting the embedded authentication key or component thereof for subsequent authentication, as discussed above.

**17. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 as applied to claims 11, and further in view of Chou et al U.S. Patent No. 5,337,357.**

As to claims 25 and 26, Lee et al does not teach using different authentication keys for each disc track. Lee et al does not teach locating at least one modified modulation rule on at least one of a per track basis and interval basis throughout the media such that the authentication step is performed for at least one of each track to be played, throughout playback and throughout recording.

Chou teaches authenticating using a different authentication key or component thereof for each disc track [column 3, lines 18-25].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lee et al so that each disc track would have used a different authentication key and the modulation rule would have been located per track for authentication as well.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lee et al by the teaching of Chou because it restricts the possibility to use a particular program only to those willing to pay for that program and to prevent others who have not obtained authorization from such use. For example, if the user must call in to get a key which is then used to run a particular distributed program and this key is the same for all copies of this program, there is nothing to prevent the caller from simply giving the key to a third party who then may access the program without paying for such use [column 1, lines 33-42].

**18. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al U.S. Patent No. 5,822,360 as applied to claims 11, and further in view of O'Connor et al U.S. Patent No. 5,745,568.**

As to claim 27, Lee et al teaches one authentication key, as discussed above.

Lee et al does not teach the data and the media via at least two different authentication keys, each of which successively must be authenticated before said data is finally output via the outputting step.

O'Connor teaches the use of an authentication key formed by the recorded hardware ID [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lee et al so that the key formed by the hardware ID would have been added to the CD. Both keys would have to be authenticated before the data would have outputted.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lee et al by the teaching of O'Connor because data security is furnished in a flexible manner so that a single specific computer or a specified class of systems is allowed access to data [column 2, lines 30-33].

**19. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 as applied to claims 13, and further in view of Chou et al U.S. Patent No. 5,337,357.**

As to claims 38 and 39, Kato et al does not teach using different authentication keys for each disc track. Kato et al does not teach locating at least one modified modulation rule on at least one of a per track basis and interval basis throughout the media such that the authentication step is performed for at least one of each track to be played, throughout playback and throughout recording.

Chou teaches authenticating using a different authentication key or component thereof for each disc track [column 3, lines 18-25].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have Kato et al so that each disc track would have used a different authentication key and the modulation rule would have been located per track for authentication as well.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kato et al by the teaching of Chou because it restricts the possibility to use a particular program only to those willing to pay for that program and to prevent others who have not obtained authorization from such use. For example, if the user must call in to get a key which is then used to run a particular distributed program and this key is the same for all copies of this program, there is nothing to prevent the caller from simply giving the key to a third party who then may access the program without paying for such use [column 1, lines 33-42].

**20. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 as applied to claims 13, and further in view of O'Connor et al U.S. Patent No. 5,745,568.**

As to claim 40, Kato et al teaches one authentication key, as discussed above.

Kato et al does not teach the data and the media via at least two different authentication keys, each of which successively must be authenticated before said data is finally output via the outputting step.

O'Connor teaches the use of an authentication key formed by the recorded hardware ID [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kato et al so that the key formed by the hardware ID would have been added to the CD. Both keys would have to be authenticated before the data would have outputted.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kato et al by the teaching of O'Connor because data security is furnished in a flexible manner so that a single specific computer or a specified class of systems is allowed access to data [column 2, lines 30-33].

**21. Claims 43, 44, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 and Hogan U.S. Patent No. 5,828,754 as applied to claims 15, and further in view of Chou et al U.S. Patent No. 5,337,357.**

As to claims 43, 44, 48 and 49, neither Kato et al nor Hogan teaches using different authentication keys for each disc track. Neither Kato et al nor Hogan teaches locating at least one modified modulation rule on at least one of a per track basis and interval basis throughout the media such that the authentication step is performed for at least one of each track to be played, throughout playback and throughout recording.

Chou teaches authenticating using a different authentication key or component thereof for each disc track [column 3, lines 18-25].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan so that each disc track would have used a different authentication key and the modulation rule would have been located per track for authentication as well.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan by the teaching of Chou because it restricts the possibility to use a particular program only to those willing to pay for that program and to prevent others who have not obtained authorization from such use. For example, if the user must call in to get a key which is then used to run a particular distributed program and this key is the same for all copies of this program, there is nothing to prevent the caller from simply giving the key to a third party who then may access the program without paying for such use [column 1, lines 33-42].

**22. Claims 45 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 and Hogan U.S. Patent No. 5,828,754 as applied to claim 15 above, and further in view of O'Connor et al U.S. Patent No. 5,745,568.**

As to claims 45 and 50, the combination of Kato et al and Hogan teaches one authentication key, as discussed above.

The combination of Kato et al and Hogan does not teach the data and the media via at least two different authentication keys, each of which successively must be authenticated before said data is finally output via the outputting step.

O'Connor teaches the use of an authentication key formed by the recorded hardware ID [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan so that the key formed by the hardware ID would have been added to the CD. Both keys would have to be authenticated before the data would have outputted.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan by the teaching of O'Connor because data security is furnished in a flexible manner so that a single specific computer or a specified class of systems is allowed access to data [column 2, lines 30-33].

***Conclusion***

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K Moorthy whose telephone number is 703-305-1373. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-1373.

Aravind K Moorthy  
December 11, 2003

  
GILBERTO BARRON  
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